

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A magnetic recording medium comprising a substrate, a soft magnetic layer, a perpendicular magnetic layer, and a protective layer, the layers being provided atop the substrate, wherein the perpendicular magnetic layer comprises a magnetic crystalline alloy comprising Pt in an amount of 40 at% to 60 at%, and at least two 3d transition metal elements selected from the group consisting of Cr, Mn, Fe, Co, Ni, and Cu, wherein the total amount of the 3d transition metal elements is from 60 at% to 40 at%, and the average number of valence electrons in the respective 3d transition metal elements as calculated on the basis of the compositional proportions of the elements is from 7.5 to 8.55, and

wherein the magnetic alloy has an order parameter (S) of 0.5 to 1 as calculated from the following formula:

$$S = \left[\{F(002)^2/F(001)^2\} \times \{L(002)/L(001)\} \times \{A(002)/A(001)\} \times \{I(001)/I(002)\} \right]^{1/2}$$

wherein F(plane direction), L(plane direction), A(plane direction), and I(plane direction) represent the structure factor, Lorentz factor, absorption factor, and integration intensity as measured through X-ray diffractometry ($\theta/2\theta$) of the magnetic alloy in the corresponding plane direction, respectively.

2. (canceled).

3. (currently amended): A magnetic recording medium according to claim 1 or 2, wherein the magnetic alloy ~~which~~ has a magnetic anisotropy constant (K_u) of 8×10^5 ~~J/KJ/m³~~ to 2×10^7 ~~J/KJ/m³~~.

4. (canceled).

5. (previously presented): A magnetic recording and reproducing apparatus comprising a magnetic recording medium as recited in claim 1, and a magnetic head for recording of data onto the medium and for reproduction of the data therefrom.